(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 22 September 2005 (22,09,2005)

PCT

(10) International Publication Number WO 2005/087652 A1

- (51) International Patent Classification7-
- (21) International Application Number:
 - PCT/JP2005/005039

English

English

- (22) International Filing Date: 15 March 2005 (15.03.2005)
- (25) Filing Language:
- (26) Publication Language
- (30) Priority Data:
 - 2004-073318 15 March 2004 (15.03.2004) JP
- (71) Applicant (for all designated States except US): MAT-SUSHITA ELECTRIC WORKS, LTD. [JP/JP]: 1048. Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only); GOUDA, Kazuo [JP/JP]: c/o MATSUSHITA ELECTRIC WORKS, LTD., 1048, Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP). TSUJI, Koji [JP/JP]; c/o MATSUSHITA ELECTRIC WORKS, LTD., 1048, Ozza-Kadoma, Kadoma-shi, Osaka. 5718686 (JP). KIRIHARA, Masao [JP/JP]; c/o MATSUSHITA ELECTRIC WORKS, LTD., 1048, Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP), NISHI-JIMA, Youichi [JP/JP]; c/o MATSUSHITA ELECTRIC WORKS, LTD., 1048, Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP).

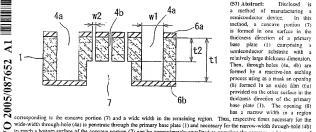
- B81C 1/00 (74) Agents: KAWAMIYA, Osamuet al.; AOYAMA & PART-NERS, IMP Building, 3-7, Shiromi I-chome, Chuo-ku, Osaka-shi, Osaka, 5400001 (IP).
 - (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EF, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM.
 - (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM. KE, LS, MW, MZ, NA, SD, SL, SZ, TZ. UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FL FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, Cl, CM, GA, GN, GQ, GW, ML. MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazene.

(54) Title: METHOD OF MANUFACTURING SEMICONDUCTOR DEVICE



(57) Abstract: Disclosed is a method of manufacturing a semiconductor device. in this

wide-width through-hole (4a) to penetrate through the primary base plate (1) and necessary for the narrow-width through-hole (4b) to reach a bottom surface of the concave portion (7) can be approximately equalized to complete the common etching process of the wide-width through-hole (4a) and the narrow-width through-hole (4b) approximately simultaneously,